NTSB ID: NYC01FA217 Aircraft Registration Number: N629PD Occurrence Date: 08/26/2001 Most Critical Injury: Fatal Occurrence Type: Accident Investigated By: NTSB

Location/Time

Nearest City/Place State Zip Code Local Time Time Zone 07747 2030 **EDT** Matawan NJ Distance From Landing Facility: 0.5

Airport Proximity: Off Airport/Airstrip

Aircraft Information Summary

Aircraft Manufacturer Model/Series Type of Aircraft Cessna 172SP Airplane

Revenue Sightseeing Flight: No

Air Medical Transport Flight: No

Narrative

Brief narrative statement of facts, conditions and circumstances pertinent to the accident/incident:

HISTORY OF FLIGHT

On August 26, 2001, about 2030 eastern daylight time, a Cessna 172SP, N629PD, was substantially damaged when it collided with transmission wires and terrain, after a touch-and-go at Marlboro Airport (2N8), Matawan, New Jersey. The certificated private pilot and passenger were fatally injured. Visual meteorological conditions prevailed; and no flight plan was filed for the local personal flight conducted under 14 CFR Part 91.

According to a witness at Marlboro Airport, the airplane departed runway 27 about 2015, and flew around the local area for approximately 15 minutes. He then observed the airplane approaching the airport from the northeast. The witness further stated:

"...not lined up for a normal 27 approach. I remarked to John, 'he's not trying to land on 27, is Reply was 'checking the windsock, most likely.' Aircraft drifted in to check wind and rolled back into pattern for 09. Watched downwind, base, final. Saw the plane was high and long. Aircraft touched down for a moment, then applied full power and was climbing out normally. Aircraft then banked left..."

Another witness stated that the airplane did not touch down until it was well beyond the approach end of runway 09, almost on the numbers "27" at the opposite end of the runway. After the airplane touched down, the engine revved and the airplane initially climbed, but it turned left and struck The airplane then rolled inverted, and struck the ground underneath the transmission wires. transmission wires.

The accident occurred during hours of darkness; and was located about 40 degrees 22.14 minutes north latitude, 74 degrees 14.89 minutes west longitude

PILOT INFORMATION

The pilot held a private pilot certificate, with a rating for single engine land airplane. The pilot received his private pilot certificate on August 22, 2001, and his most recent Federal Aviation Administration (FAA) third class medical certificate was issued on March 27, 1999.

According to the pilot's logbook, he had approximately 87 hours of flight experience, of which, about 12 hours were in the same make and model as the accident airplane. Additionally, the pilot had a total nighttime flight experience of approximately 5 hours.

METEOROLOGICAL INFORMATION

The reported wind at an airport approximately 10 miles southeast of the accident site, at 2035, was

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Narrative (Continued)

210 degrees at 8 knots.

AERODROME INFORMATION

Marlboro Airport was located about 3 miles south of Matawan, New Jersey. The airport was 122 feet above mean sea level. The single asphalt runway (09/27) was 2,156 feet long, and 50 feet wide.

The tower that supported the transmission wires was approximately 133 feet tall, and unlighted. However, it was not in line with the departure end of runway 09. The tower was adjacent to the runway, located approximately 1,260 feet northeast of the end of runway 09. Additionally, according to the Airport Facility Directory, there were 56-foot high power lines, located about 860 feet beyond the departure end of runway 09 (1,300 feet from the displaced threshold of runway 27).

WRECKAGE INFORMATION

The wreckage was examined at the accident site on August 27 and 28, 2001. The airplane was located approximately 1,300 feet northeast of runway 09. It was resting in a field, intact, inverted, and oriented about a 200-degree heading. No ground scars were observed around the wreckage. A strong odor of fuel was present, and some of the vegetation in the vicinity of the wreckage was discolored. All major components of the airplane were accounted for at the accident scene. The right main landing gear was the only component found separated from the airplane. It was located approximately 185 feet south of the main wreckage, and had several scrape marks consistent with a wire strike. Additionally, a section of transmission wire was recovered, and it exhibited scraping. The top section of the transmission tower near the wreckage was damaged.

Examination of the wreckage revealed no pre-impact mechanical malfunctions. Flight control continuity was confirmed from all control surfaces to the cockpit area. Although fuel had leaked from the airplane, some fuel was still present in both of the fuel tanks. The wing flaps were observed in the retracted position. However, a Marlboro Police Sergeant stated they were in the extended position when he first arrived at the scene. Additionally, a flap jackscrew measurement corresponded to a flap setting of between 20-30 degrees. The right wing sustained crushing damage to the upper surface, but little leading edge damage. The right aileron was deflected upward. The left wing sustained crushing damage to the upper surface and leading edge. The left aileron was deflected downward. The fuselage was slightly buckled, and there was no visible damage to the empennage. The elevator was deflected upward, and the rudder was deflected to the left. The elevator trim tab was found in an approximate 6-degree tab down position.

The cockpit area was intact, but crushed downward. The fuel selector was found in the "BOTH" position, and the throttle and mixture controls were observed in the full forward position. The flap selector and indicator were found near the 10-degree flap setting. The pilot seat and seatbelt were cut by emergency personnel. The passenger seat and seatbelt remained intact, and when tested, the passenger seatbelt fastened and released properly.

The engine was removed from the airplane for examination. The propeller remained attached to the engine. One blade displayed "s-bending," and the other blade was bent slightly aft. The spark plugs and valve covers were removed from the engine. The spark plug electrodes were intact and light gray in color. The propeller rotated freely by hand. Crankshaft, camshaft, and valve train continuity was confirmed, and thumb compression was attained on all four cylinders. Both magnetos produced spark at all leads. When the oil filter was removed and inspected, it was absent of metallic contamination. Fuel was found in fuel lines and engine driven fuel pump.

MEDICAL AND PATHOLOGICAL INFORMATION

An autopsy was performed on the pilot by personnel of the Monmouth County Medical Examiners Office, Freehold, New Jersey.

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Toxicological testing was conducted on the pilot at the FAA Toxicology Accident Research Laboratory, Oklahoma City, Oklahoma.

TESTS AND RESEARCH

Review of an Information Manual for the accident airplane revealed the following takeoff data: at 2,400 pounds gross weight; with a 4 knot tailwind component; at sea level; with flaps extended 10 degrees; from a paved, level, dry runway; with full throttle prior to brake release; at 68 degrees Fahrenheit; and lift off at 48 knots of indicated airspeed; required a ground roll of 1,032 feet. A total of 1,764 feet were required to clear a 50-foot obstacle (or 732 feet to clear a 50-foot obstacle if already at 48 knots).

Review of the FAA Airplane Flying Handbook revealed:

"During initial climb, it is important that the takeoff path remain aligned with the runway to avoid the hazards of drifting into obstructions, or the path of another aircraft that may be taking off from a parallel runway."

ADDITIONAL INFORMATION

The FAA inspector involved in the accident investigation recommended that the 133-foot tower be illuminated at night. On January 9, 2002, the FAA sent a letter to GPU Energy. The letter requested that GPU file appropriate information for an FAA Notice of Proposed Construction for Aeronautical Study. As of the completion of this report, GPU had not responded to the letter.

The wreckage was released to a representative of the owner's insurance company on August 28, 2001.

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AVIATION		Occurrence Type: Accident									
Landing Facility/Approach In	formation										
Airport Name		Airp	ort ID:	Airport Elevation	Run	way Used	Runwa	y Lengtl	h Ru	nway Width	
Marlboro Airport 2			18	122 Ft. MSL	. 09		2156		50)	
Runway Surface Type: Asphalt		,		•	•				•		
Runway Surface Condition: Dry											
Approach/Arrival Flown: NONE	 E										
VFR Approach/Landing: Touch ar	nd Go; Traffic Patt	ern									
Aircraft Information											
Aircraft Manufacturer Cessna			Model/ 172S						l Number S8368		
Airworthiness Certificate(s): Norm	ıal										
Landing Gear Type: Tricycle											
Amateur Built Acft? No	Number of Seats: 4 Certified Max Gross Wt. 2550 LBS Nur						Numbe	r of Engin	es: 1		
Engine Type: Reciprocating				nufacturer:		Rated Power: 180 HP					
- Aircraft Inspection Information											
Type of Last Inspection		Da	Date of Last Inspection Tim			nce Last Insp	ection	Airframe ⁻	Total Time		
Annual		07	07/2001				69 Ho		469 Hours		
- Emergency Locator Transmitter (ELT) Information										
ELT Installed?/Type Yes /		EL	T Operat	ted? Yes	ELT Aid	ded in Locatir	ng Accide	ent Site?	No		
Owner/Operator Information											
Registered Aircraft Owner			Street A	oddress Marlboro Airp	ort						
Marlboro Flight Services			City	Marlboro	State NJ	Zip Code 07746					
Operator of Aircraft			Street A						1	1000	
Esquire Aviation Inc.		-	City		State	Zip Code					
				Freehold	NJ	07728					
Operator Does Business As:					0	perator Desig	nator Co	de:			
- Type of U.S. Certificate(s) Held:											
Air Carrier Operating Certificate(s)	:										
Operating Certificate:				Operator Certifi	cate:						
Regulation Flight Conducted Unde	r: Part 91: Genera	l Aviation									
Type of Flight Operation Conducted	d: Personal										
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AVIATION				Occurrence Type: Accident				7							
First Pilot	Information														
Name						City					Sta	te	Date of B	sirth	Age
On File							On File					File	On File		23
Sex: M	Sex: M Seat Occupied: Left Occupational Pilot? Unknown Certificate Number: On									per: On F	ile	'			
Certificate(s): Private															
Airplane Rating(s): Single-engine Land															
Rotorcraft/Glider/LTA: None															
Instrument Rating(s): None															
Instructor F	Rating(s): None	е													
Current Bie	nnial Flight Revie	ew? 08/200°	1												
Medical Ce	rt.: Class 3	Medica	al Cert. Statu	s: Valid Me	dicalw/ wa	aivers/lir	m.		Da	ate of La	ast Me	edical E	xam: 03/	1999	
		· ·													
- Flight Tim	ne Matrix	All A/C	This Make and Model	Airplane Single Engine	Airplane Mult-Engine	Night	t	Actual	Instrument	rument R		Rotorcraft	Glider		Lighter Than Air
Total Time		87	12	87			5								
Pilot In Cor	nmand(PIC)	22	6	22			1		\perp						
Instructor		0	0	0		_			\perp		_				
Instruction		40	40	40		+							-		
Last 90 Day		12 6	12 6	12 6		+	1				_		+		
Last 30 Day		0	0	0		+	0		-		+		+		
Seatbelt Us		<u>' </u>	ılder Harness			<u> </u>		logy Pei	rforme	d? Yes		Se	Second Pilot? No		
Flight Pla	n/Itinerary														
	tht Plan Filed: No	one													
Departure F						T	State Airp		Airport	irport Identifier		Departure Time		e T	Time Zone
Same as	Accident/Incide	nt Location					2N8					2015			EDT
Destination							State Airport			ort Identifier					
Local Flight															
Type of Clearance: None															
Type of Air	space: Class	G													
Weather Information															
Source of Wx Information:															
	Unkno	wn													
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	AVIATION		Оссі	ırrence Type	e: Accid	lent							
Weather	Information												
WOF ID	Observation Time	Time Zone	WOF E	levation	WOF	Distance From	om Accid	dent Site Direction From Accide			From Accident S	iite	
BLM	2035	EDT	15	59 Ft. MSL				10 NM 130 Deg				g. Mag.	
Sky/Lowes	st Cloud Condition: Clear					Ft. A	AGL	Condition of Light: Night/Dark					
Lowest Ce	illing: None			Ft. AGL	Vis	sibility:	10	SM Altimeter: 29.97					
Temperatu	ure: 23 °C [Dew Point:	17	°C Wea	ather Co	nditions at Ad	ccident S	ent Site: Visual Conditions					
Wind Direc	ction: 210	Wind Sp	eed: 8		W	/ind Gusts:							
Visibility (F	RVR): Ft.	Visibility	(RVV)	SM									
Precip and	d/or Obscuration:												
Accident	Information												
Aircraft Da	mage: Substantial		Aircra	Aircraft Fire: None					Aircraft Explosion None				
Allorant Dai	mage. Oubstantial		Alloic	11110.1101				Alloran Exp	710310	II IVOIIC			
Indiama Car		Fatal	Cariava	Minor	Nana	TOTAL							
	mmary Matrix	Fatal	Serious	Minor	None	TOTAL	-						
First Pi		1		\longrightarrow		_	1						
Second				\longrightarrow		_	4						
Studen							-						
	nstructor						-						
Check				\longrightarrow		_	\dashv						
	Engineer			\longrightarrow			\dashv						
Other C	Attendants						\dashv						
		1		\longrightarrow			_						
Passer	ABOARD -												
Other C		2					2						
	O TOTAL -	2					2						
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National Transportation Safety Board

FACTUAL REPORT AVIATION

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Investigator-In-Charge (IIC)

Robert J. Gretz

Additional Persons Participating in This Accident/Incident Investigation:

Kenneth Symons FAA FSDO-25 Teterboro, NJ

Dave Moore Textron Lycoming Williamsport, PA

Henry Soderland Cessna Aircraft Company Wichita, KS